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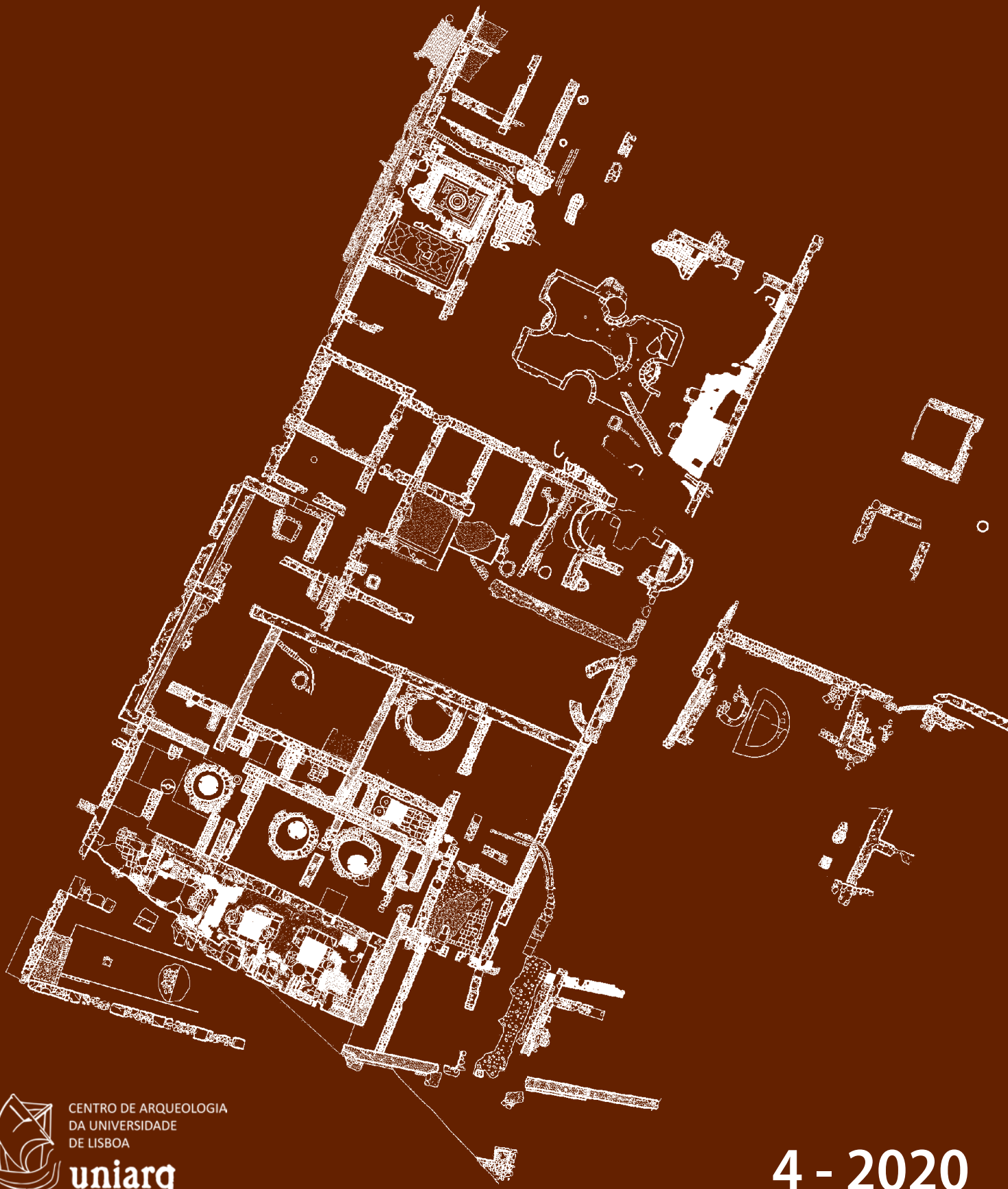

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The megalithic clusters of Deserto and Barrocal das Freiras (Montemor-o-Novo, Middle Alentejo) in the building of the sacred landscapes of ancient peasant societies of the 4th and 3rd millennia BCE

Os núcleos megalíticos do Deserto e Barrocal das Freiras (Montemor-o-Novo, Alentejo médio) na construção das paisagens sagradas das antigas sociedades camponesas dos 4.º e 3.º milénios a.n.e.

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Rui Boaventura (1971-2016).
Para que a sua memória se não acabe,
num País que tão facilmente esquece os seus,
aqui dizemos o seu nome.

VSG & MAA

Looking is not the same as seeing.

Zatoichi

ABSTRACT:[1] The megalithic clusters of Deserto and Barrocal das Freiras are currently under study in the framework of the OMEGA research project. This group of monuments consists mostly of so-called "proto--megalithic" tombs, probably used around the mid-4th millennium BCE, possibly earlier. Other more evolved medium-to-large-sized monuments with differentiated Chamber and Corridor (passage graves), from the late 4th millennium and the first quarter of the 3rd millennium BCE, also exist in peripheral areas around the central clusters. This allows us to consider a *centre-periphery* development in building this space, with the earlier monuments located in the central area and the latest monuments located in its immediate surroundings. The study of the groups of Deserto and Barrocal das Freiras, taking in account both the architectural features of the monuments and the specificities of their votive sets, makes it possible to serialize the

[1] Translation from portuguese (subventioned by UNIARQ): ESBN CONSULTING LDA.

chronological and cultural levels of construction and use of these monuments, defining the building diagrams of the sacred places and the megalithic landscapes during the 4th and 3rd millennia BCE in Middle Alentejo.
KEYWORDS: Megalithism; Origin and Development; 4th-3rd millennium BCE; Middle Alentejo (Portugal).

RESUMO: No âmbito do projecto OMEGA, encontram-se em estudo os núcleos megalíticos das Herdades do Deserto e Barrocal das Freiras, correspondendo ao agrupamento de vários monumentos, maioritariamente sepulcros ditos «proto-megalíticos», com utilizações muito provavelmente centradas em meados do 4.º milénio a.n.e., ou mesmo um pouco anteriores. Monumentos evoluídos, de média ou grande dimensão, de Câmara e Corredor bem diferenciados, de finais do 4.º e primeiro quartel do 3.º milénio a.n.e., encontram-se em áreas periféricas ao núcleo central. Tal permite considerar uma evolução *centro-periferia* na construção deste espaço, com os monumentos mais antigos localizados na área central e os monumentos mais recentes localizados no seu entorno imediato. O estudo do conjunto do Deserto e Barrocal das Freiras, aliando as características arquitectónicas dos monumentos às particularidades dos depósitos votivos, permite seriar os patamares crono-culturais de construção e utilização de estes monumentos, definindo os diagramas de construção dos espaços sagrados e das paisagens megalíticas durante os 4.º e 3.º milénios a.n.e. na área do Alentejo médio.
PALAVRAS-CHAVE: Megalitismo; Origem e Desenvolvimento; 4.º- 3.º milénio a.n.e; Alentejo Médio (Portugal).

1. INTRODUCTION

The authors consider the region called Middle Alentejo extremely important for defining and understanding the chronological and cultural levels of Megalithism in Southwestern Iberia. More than a thousand listed monuments exist there, according to the *Endovélico* database (managed by the Portuguese General Directorate for Cultural Heritage). The megalithic groups that appeared in this region, possibly as from the second quarter of the 4th millennium BCE, had a distinctive identity, even in the generic context of the European Megalithic Cultures. This identity is found in the unique architectural features of monuments and the specificities of their votive sets. Special reference should be made to the typical engraved schist plaques that appear as from the late 4th millennium BCE, with a seeming diffusion focal point centred precisely in this region (Montemor-o-Novo – Évora – Reguengos), in which monuments with more than a hundred and a half of such ideotechnical artefacts are found.

The clusters of megalithic monuments located in the estates of Deserto and Barrocal das Freiras (Montemor-o-Novo) are currently being studied in the framework of project *OMEGA – Origins of Megalithism in Middle Alentejo*, conducted by the authors following the research guidelines of the Workgroup on Ancient Peasant Societies (WAPS) of UNIARQ (Centre for Archaeology, University of Lisbon). The nuclei were excavated by Manuel Heleno in the 1930s and the results have remained virtually unpublished until now.

These clusters are characterized by the grouping of several dozen monuments (including the central components of the "necropolized" space and the so-called "satellite monuments"), distributed by two contiguous groups, mainly formed by the so-called "proto-megalithic" tombs or small tombs with an incipient Corridor, having simple votive sets formed by polished stone artefacts, small unretouched blades, geometric armatures (trapezoids, crescents and triangles) and scarce (or absent) pottery – *grosso modo* pointing at their use during the mid-4th millennium BCE (3600-3400 BCE). More evolved monuments, with medium to very large sizes, with differentiated Chamber and Corridor (passage graves), already from the late 4th millennium and the first quarter of the 3rd millennium BCE, are found in peripheral areas around the central clusters. We can therefore consider an apparent evolution from the centre to the periphery in the construction of this «necropolized» area, with the earlier monuments occupying the central area of the megalithic space and the more recent ones around it.

The integrated study of the megalithic group of Deserto and Barrocal das Freiras is critically important to accomplish the objectives of project OMEGA,

combining the architectural features of the monuments and the specificities of the votive sets collected therein (complemented by current excavations and surveys). This will make it possible to serialize and define the chronological and cultural settings of construction and use of these monuments, characterizing the building diagrams of the sacred spaces and the megalithic landscapes of the ancient peasant societies of the 4th and 3rd millennia BCE in the Middle Alentejo region. Using this group as a case study, we aim to test the theoretical models on the origins and development of Megalithism in the geographic context of Southwestern Iberia.

2. PHYSICAL ENVIRONMENT

Geographically speaking, the estates of Deserto and Barrocal das Freiras (Montemor-o-Novo) are located in the region of Alentejo, in the Middle Alentejo sub-region, between the Ossa and Mendro mountain ranges (North and South, respectively) and between the course of the river Guadiana and "Charneca do Ribatejo" (East and West, respectively), administratively corresponding to the current Évora district (Fig. 1).

This region is characterized by the presence of large open areas (levelled surfaces), punctuated by some residual reliefs. It is primarily shaped by the orogeny of the above mentioned mountain chains. In geomorphologic terms, it belongs to the typical peneplain of Middle Alentejo (Feio *et al.* 2004). The clusters of Deserto and Barrocal das Freiras are located precisely at the hinge between this landscape unit and the flat areas corresponding to the Tagus's Tertiary deposits (the so-called "Charneca do Ribatejo"). They are placed on the left bank of the Ribeira do Lavre watershed, apparently interconnecting with other subsidiary waterways (Ribeiras dos Pegos, Espragal e Freixeirinha). This geographical location places the megalithic clusters of Deserto and Barrocal das Freiras in the context of a long circulation corridor between the Alentejo hinterland and the Tagus valley, formed precisely by the Ribeira do Lavre – River Almansor interfluve.

In geological terms (Zbyszewski *et al.* 1994), the clusters are located at the western edge of the extensive granitoid bedrock of the peneplain of Central Alentejo, corresponding to the Hercynian (orogenic) substrata of the Southern Portugal region. The specific area of the megalithic nuclei of Deserto and Barrocal das Freiras is characterized by patches of granitoid

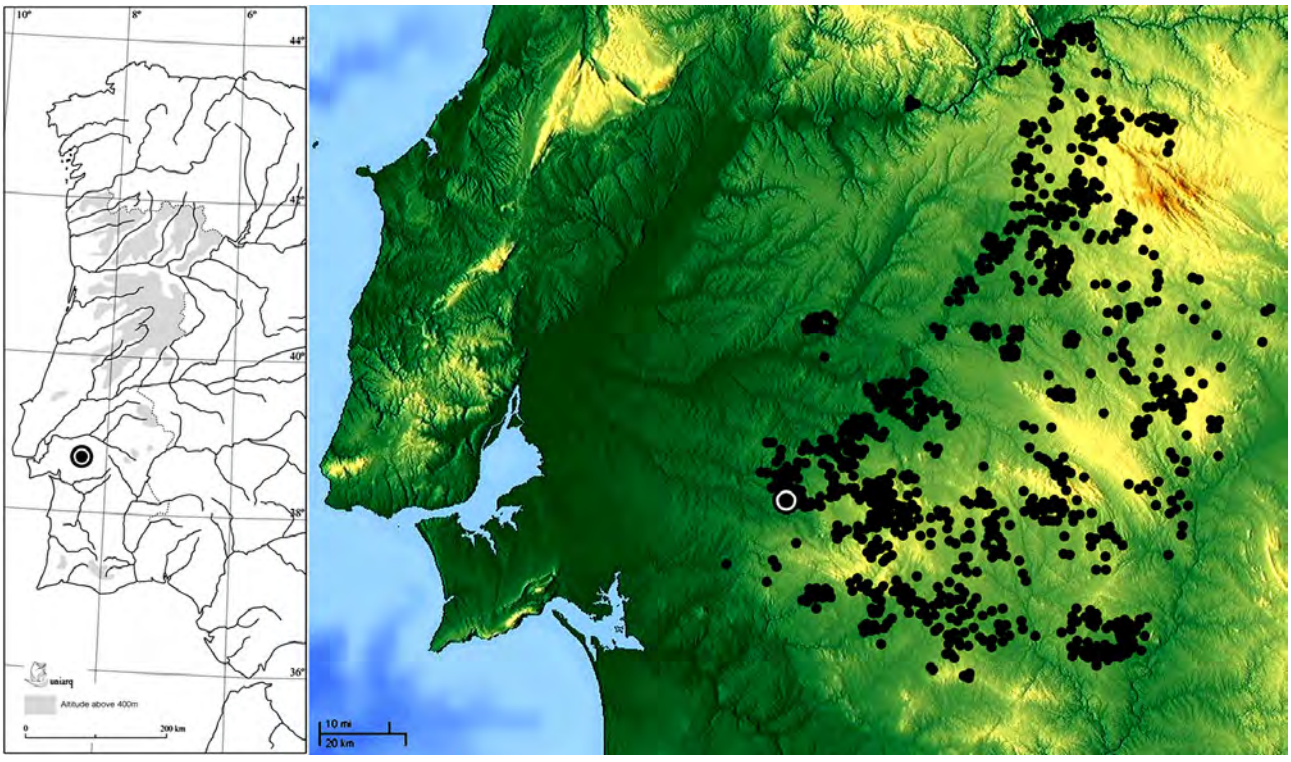


FIG. 1 Location of the megalithic clusters of Deserto and Barrocal das Freiras in the Iberian Far West (left) and in the context of the Alentejo Megalithism (right; base map: *Google Maps*, 2015).

FIG. 2 Defining landscape features of the areas of Deserto and Barrocal das Freiras in present times, with special reference to the latter's granite geological formations.

rocks (trondhjemites with associated granodiorites, granodiorites and undifferentiated granites, migmatitic gneisses, tonalites), parallelly arranged in the Northwest-Southeast direction. In the context of granodiorites and undifferentiated granites, especially at Barrocal das Freiras, the landscape is primarily marked by the existence of extensive boulder clusters, with a few isolated outcrops in the remaining geological contexts (Fig. 2).

This granitoid substratum is related to amphibolite and quartzite ridges (Upper Proterozoic) and associated veins of microgranites, pegmatites, and coarse granites. This geological context effectively corresponds to the limit of the Middle Alentejo megalithic

group, in the transition area with the tertiary cover deposits – namely gravel beds, argillaceous sandstone and arkosic clays (Paleogene and Lower Miocene), clays from the Lavre complex (Miocene) and argillaceous sandstones deposits of Bombel (Mid-Pliocene).

As regards paleo-vegetation and climate, data provided by some recently excavated monuments in Alentejo (the passage graves of Horta, Soalheira, Santa Margarida 2 and Santa Margarida 3) reveal that, between the Early Neolithic and the Middle Neolithic, this area's climate was characterised by higher environmental humidity and lower temperatures, featuring woodlands with a quantitative balance of *Quercus* species. In the Late Neolithic and Chalcolithic, there was a reduction of the arboreal mass, with a decrease of mixed *Quercus* woodlands and an increase of open spaces or bush areas. In fact, this is a period of environmental inflexion generally coinciding with the consolidation process of the ancient peasant communities (Queiroz 2001; 2003; Duque Espino 2003; 2005).

3. THE MEGALITHIC SPACE

The megalithic clusters of Deserto and Barrocal das Freiras are part of the so-called Megalithic Group of Middle Alentejo, which is mainly characterized by the monuments of the Montemor – Évora – Reguengos axis (Gonçalves 1992). They are located at its western edge, beyond which there is sparse "megalithic evidence"; only a few cases that are hard to define, such as Monte da Barca and Sobral de Martim Afonso (Gonçalves 2011; Andrade 2017), or the "stand-alone" cluster of Montargil (Leisner – Leisner 1953). Two clusters belong to a larger group of more than one thousand monuments, found in the space currently corresponding to the district of Évora – a well-defined geographical space between Ossa and Mendro mountain ranges, and between the Guadiana valley and "Charneca do Ribatejo".

In the specific area of Montemor-o-Novo, this group is distinguishable (due to its specific territorial distribution) from other contiguous nuclei, such as Paço de Aragão/ Zambujeiro, Comenda da Igreja/ Comenda do Coelho, Vidigal e Varelas/ Bate-Pé – forming a set that is somehow territorially independent from these other groups. In terms of specific spatial distribution, monuments are situated on the left bank of Ribeira do Lavre. The two clusters formed by these monuments are apparently organised as a function of the secondary waterways; the cluster of Deserto is arranged along the creeks of Ribeira dos Pegos and Ribeira do Espragal, and the cluster of Barrocal das Freiras (also connected with the Lobeira de Cima monuments) seems to be arranged along Ribeira da Freixeirinha (Fig. 3).

These clusters are formed by 35 known monuments (Deserto 1 to 23, Barrocal das Freiras 1 to 10, Lobeira de Cima 1 to 3), spatially well-organised and forming two contiguous sets arranged over a circumscribed space with approximately 15 km^2, thus composing the central area of this "necropolized" space (and outlining the areas preferred for "funerary uses"). Space-wise, this area is related with other monuments (Salto do Lobo, Lobeira de Baixo 1 to 3, Pego da Regina, Atalaia 1 and 2, Amendoeira 1 and 2, Espragal), located in regions considered peripheral and easily distinguishable from the central clusters. They can none the less be related in territorial terms; distinguishable from the abovementioned contiguous clusters, they are considered "satellite-monuments" of the central funerary areas. In this case, the concept is applied to any monument that has a spatial relationship of proximity to any central cluster, thus belonging to its immediate periphery (according to what was defined in Andrade, 2009, 2013a; Gonçalves – Andrade 2014-2015). The "satellite-monument" concept has here a different meaning from that applied to the *tholoi* attached to dolmens in Reguengos de Monsaraz (Gonçalves 1992; 1999). Adding the central monuments to the peripheral ones, we then have a total of 45 currently known burial sites, forming the general set of Deserto and Barrocal das Freiras – a considerable amount in terms of organization of the occupied space, even considering what we know about its geo-cultural context.

In terms of landscape placement and integration, we can recognise different solutions in the clusters of Deserto and Barrocal das Freiras. The topographic installation of the monuments does not follow any strict criteria; they are placed either on hilltops, or open flat areas, or mid-slope platforms, or foothills. We cannot identify any clearly individuated specific

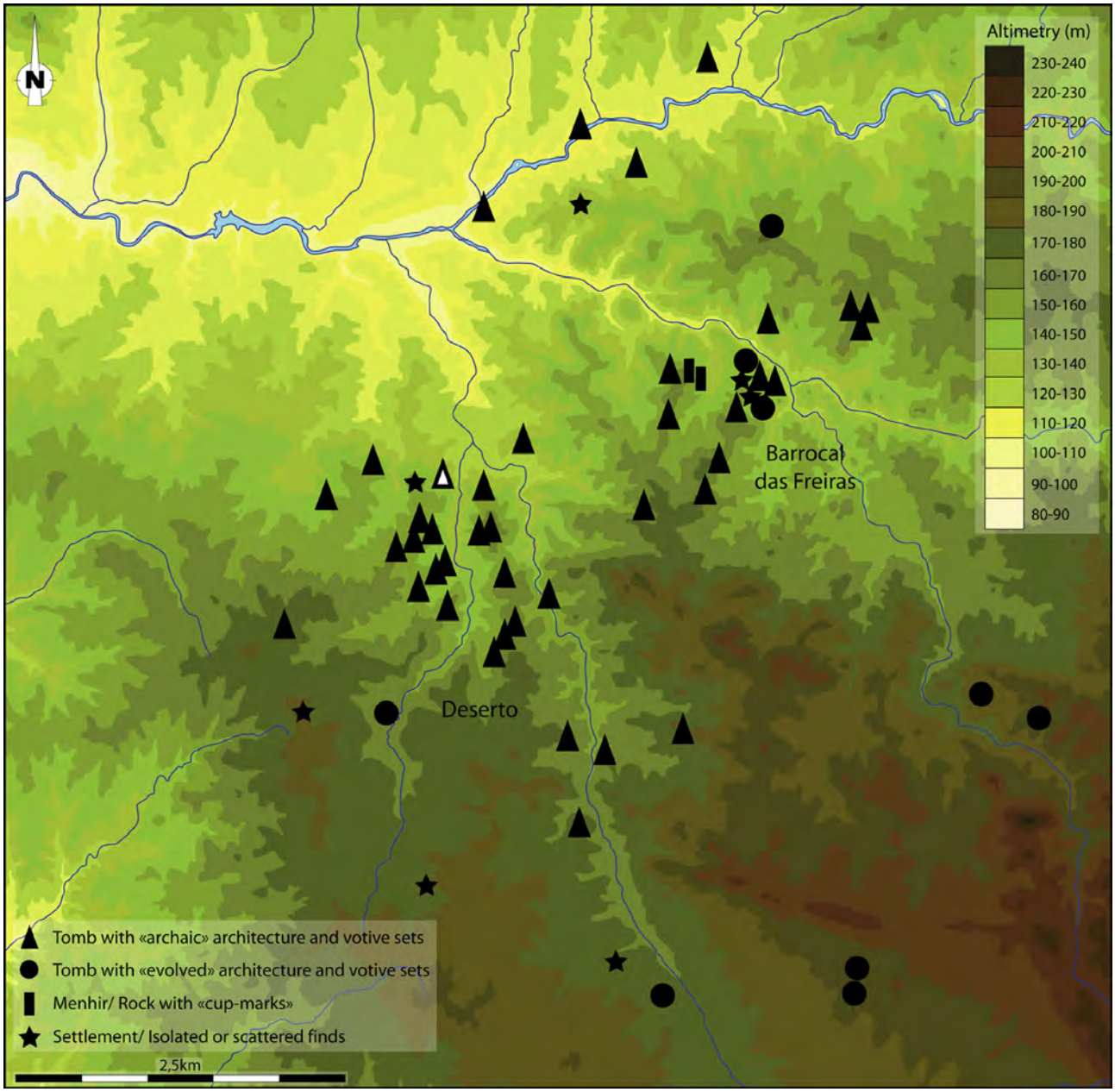


FIG. 3 The area of the megalithic clusters of Deserto and Barrocal das Freiras, showing the "archaic" monuments (triangles) and the "evolved" monuments (circles). The chronological and cultural framework is based on the monuments' architectural features and their votive sets. Ribeira de Lavre runs in the North, transversely crossing the territory. The monument excavated within this project, Deserto 16, is identified by the empty symbol.

standard. Visibility-wise, we also find different types, depending on the determinants of the monument's placement. There are monuments with total visibility (placed on hilltops, or open flat areas), partial visibility (placed on mid-slope platforms or spurs), or punctual visibility (placed in foothills).

Construction materials apparently depend on the geological context of the monuments. Locally available stone was used and no clear investment was made in obtaining the up-rights (orthostats), as the materials came from the immediate surroundings (less than 1 km), as seen in other areas of Alentejo (cf. Dehn *et al.* 1991; Kalb, 1996; 2013; Boaventura 2000; Nogueira *et al.* 2015; Pedro *et al.* 2015; Boaventura *et al.* 2020). Likewise, many architectural elements of these monuments (especially the earlier ones) have only been slightly shaped, or even used raw (unshaped), thus revealing a certain carelessness regarding the final look of these components.

4. CONTEXTS AND TIME FRAMES

The megalithic clusters of Deserto and Barrocal das Freiras are, to some extent, defined by the formal diversity (in architectural terms) of their components. This diversity is apparently explained more by chronological factors than by cultural factors involved in the composition of these "necropolized" spaces (Figs. 4 to 6). We generally recognize five architectural types:

Type 1 – closed "cistoid" monuments, with a rectangular plan (Deserto 2, 4, 6, 7, 8, 14, 17 and 19; Barrocal das Freiras 8 and 10);
Type 2 – open "cistoid" monuments, with a rectangular plan (Deserto 5, 13, 15 and 22; Barrocal das Freiras 6);
Type 3 – open "cistoid" monuments, with a pyriform plan (Deserto 16, Lobeira de Cima 3);
Type 4 – small monuments with incipient Corridor (Deserto 3, 9, 12 and 20);
Type 5 – medium-to-large sized monuments, with differentiated Chamber and Corridor (passage graves), with a medium-to-long Corridor (Deserto 1; Barrocal das Freiras 2 and 3).

Artefacts found at these monuments enable us to relate Types 1 to 4 to a period between the second and the third quarter of the 4th millennium BCE, when this area began to be used as a funerary space (between the full Middle Neolithic and the early Late Neolithic). Type 5 belongs to a period between the last quarter of the 4th and the first of the 3rd millennium BCE, corresponding to an evolved phase (between the Late Neolithic and the Early Chalcolithic).

The votive packages recognized in Types 1 to 4 are generally defined by polished stone artefacts (axes and adzes; items with a sub-circular/sub-elliptic transversal cross-section and pecked body stand out amongst the first type), together with unretouched bladelets or small flint blades, obtained through indirect percussion, and geometric armatures (trapezoids, crescents and triangles) obtained from segments of small blades (Fig. 7). The presence of pottery in the votive sets is rare (reference should be made to the peculiar presence of bowls with elliptical mouth, such as in Deserto 4 and 7).

In the "ancient" monuments group of Deserto and Barrocal das Freiras, geometric armatures are mainly

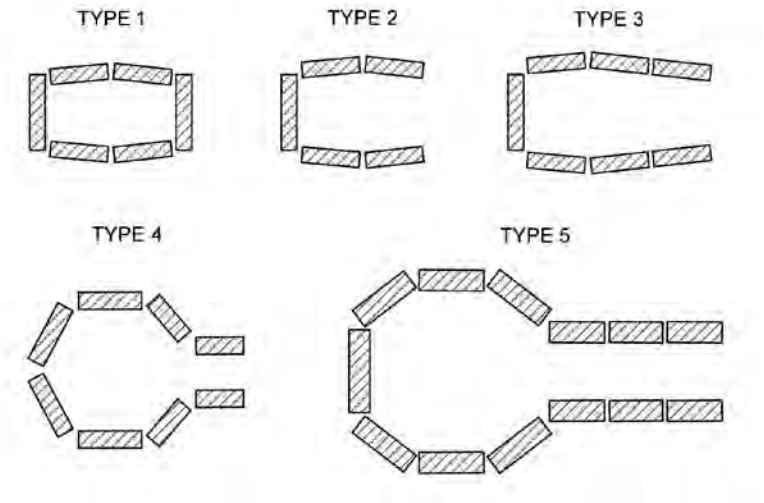


FIG. 4 General architectural types found at the megalithic clusters of Deserto and Barrocal das Freiras. Type 1: closed "cistoid" monuments, with a rectangular plan; Type 2: open "cistoid" monuments, with a rectangular plan; Type 3: open "cistoid" monuments, with a pyriform plan; Type 4: small monuments with incipient Corridor; Type 5: medium to large-sized monuments, with differentiated Chamber and Corridor, with a medium to long Corridor.

represented by trapezoids (83.05%, distributed by symmetric trapezoids, asymmetric trapezoids and rectangle trapezoids, some with a lateral notch), with a proportionately small number of crescents (13.56%) and triangles (3.39%). Polished stone artefacts show a relatively similar percentage of axes and adzes (50.00% and 47.73%, respectively), with a small number of gouges (2.27%, corresponding to a single item found at Deserto 7). Axe percentage is similar to that of adzes-gouges, as previously found in the specific case of the monument of Poço da Gateira 1 (Leisner – Leisner 1951; Gonçalves 1999).

Axes mainly present transversal cross-section with a sub-circular/ elliptic geometry and pecked body (59.09%). However, there is a large number of axes with sub-quadrangular and sub-rectangular transversal cross-section (40.91%), traditionally considered more recent. In this case, they are related with the axes with sub-circular/ elliptic cross-section and pecked body.

The specific features of these votive sets are generally compatible with what we know for Southwestern Iberia, in apparently contemporary funerary sites, and match their regional context (as recently compiled in Mataloto *et al.* 2016-2017).

Judging from the few artefacts composing the votive offerings found at these older monuments (rarely exceeding 10 items), and the small size of those

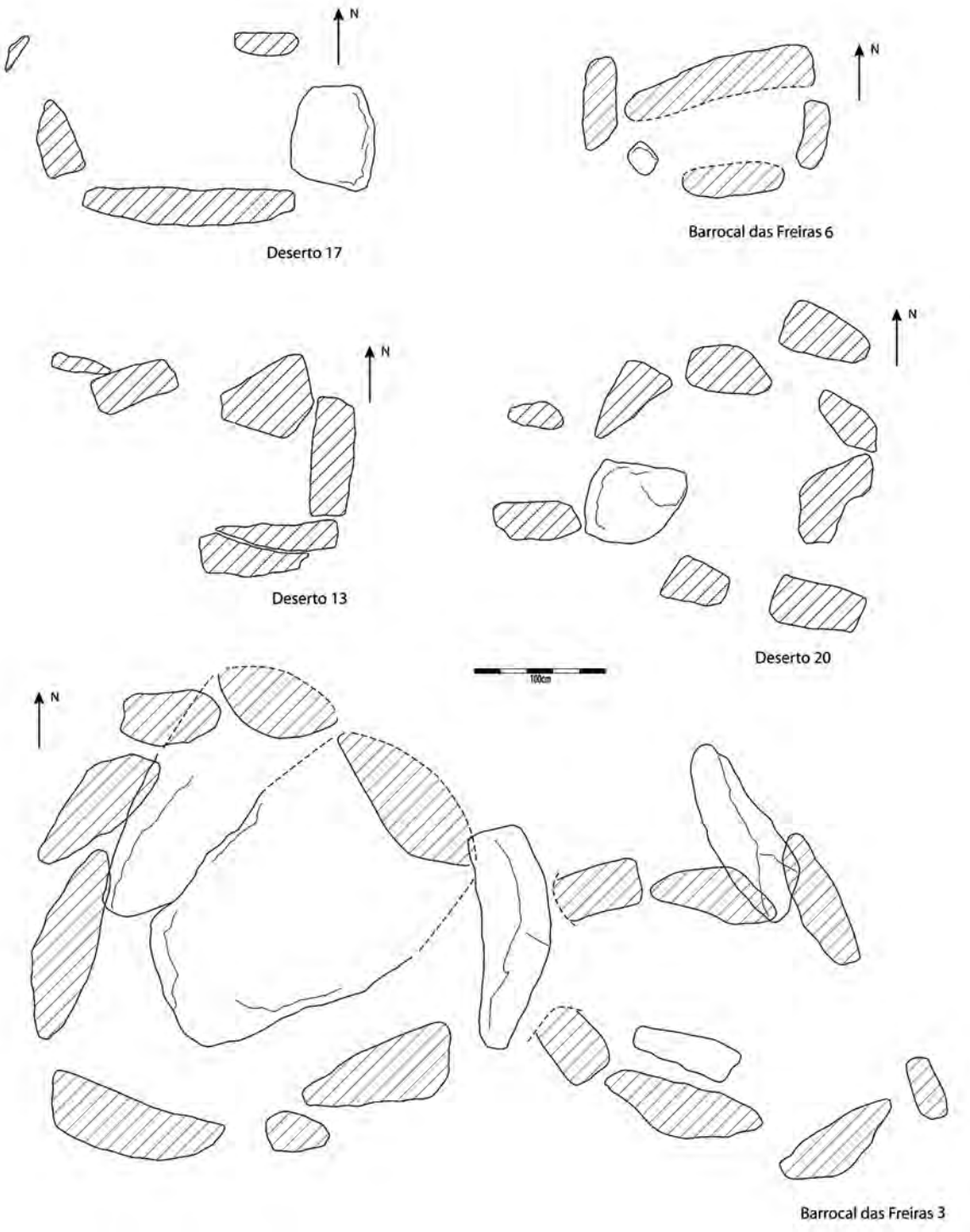


FIG. 5 Examples of the monuments found at the clusters of Deserto and Barrocal das Freiras: small closed "cistoid" monuments, with a rectangular plan (Deserto 17 and Barrocal das Freiras 6); small open "cistoid" monuments (Deserto 13); small monuments with incipient Corridor (Deserto 20); medium to large-sized monuments, with separate Chamber and Corridor (Barrocal das Freiras 3).

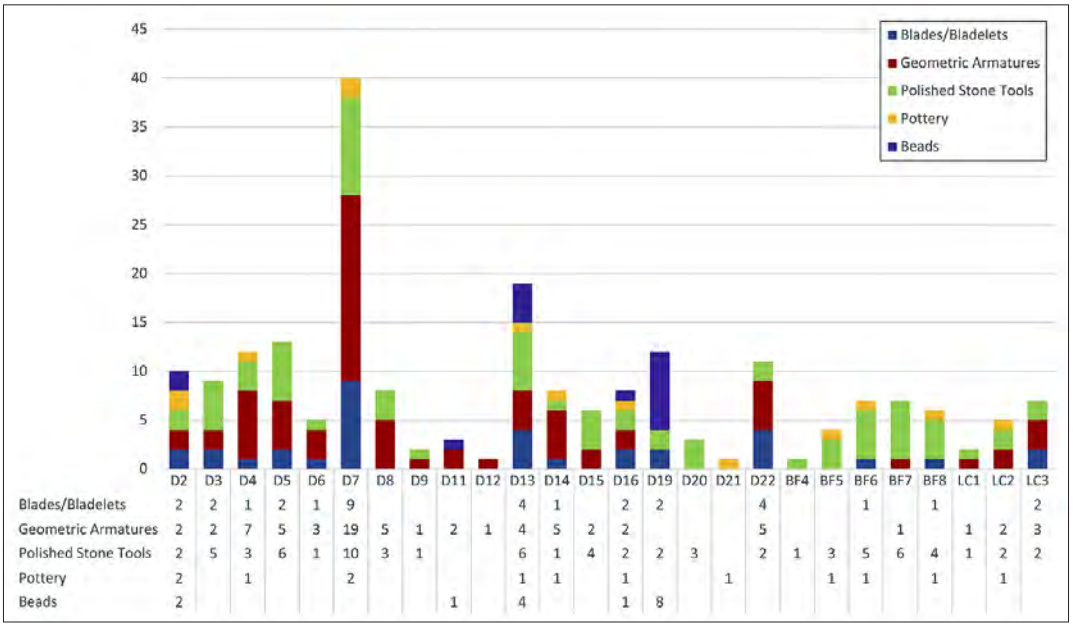
same monuments, we can say that they were meant for a restricted number of burials – in many cases, possibly just one. The monument of Deserto 7 stands out in this group – equally corresponding to a small "proto-megalithic" tomb, but with a much larger votive set compared to other similar monuments; as much as 40 items, namely two ceramic vessels (one of them a small bowl with elliptical mouth, *Remember Monchique*...), nine flint blades (one of which showing use-wear marks, as evidenced by the presence of the so-called "sickle gloss" on one edge), around two dozen geometric armatures (asymmetrical trapezoids and crescents), and a dozen polished stone artefacts (Chart 1). Perhaps this was not meant for individual depositions,

FIG. 6 Examples of "ancient" monuments (Deserto 4, Deserto 13, Deserto 20 and Barrocal das Freiras 6) and "evolved" monuments (Barrocal das Freiras 2 and 3) of the megalithic clusters of Deserto and Barrocal das Freiras.

but possibly a single-family monument, or it may suggest a funerary deposition of someone with a specific status within the group. The same situation can be found in Monchique, at the monument of Palmeira 7 (Gonçalves 1989, p. 68).

These monuments were built and used between the second and the third quarters of the 4th millennium BCE. One of them, however, may date from a slightly older chronology; Deserto 14, a small closed "cistoid" monument, yielded a votive set that, in addition to an axe with a sub-circular transversal cross-section and a small flint blade, included small crescents and triangles – obtained not from small blades (as in the other monuments) but from bladelets, as well as a sherd of

FIG. 7 Examples of the votive sets collected in "ancient" monuments of the megalithic clusters of Deserto and Barrocal das Freiras: amphibolite axes with sub-circular and sub-quadrangular cross-section (Deserto 2 and 5); small unretouched flint blades (Deserto 7); geometric flint trapezoids, crescents and triangles (Deserto 4, 6, 7 and 8).



	D2	D3	D4	D5	D6	D7	D8	D9	D11	D12	D13	D14	D15	D16	D19	D20	D21	D22	BF4	BF5	BF6	BF7	BF8	LC1	LC2	LC3
Blades/Bladelets	2	2	1	2	1	9					4	1		2	2			4			1		1			2
Geometric Armatures	2	2	7	5	3	19	5	1	2	1	4	5	2	2				5				1		1	2	3
Polished Stone Tools	2	5	3	6	1	10	3	1			6	1	4	2	2	3		2	1	3	5	6	4	1	2	2
Pottery	2		1			2					1	1		1			1			1	1		1		1	
Beads	2								1		4			1	8											

CHART 1 Relationship (according to type) of the votive sets found at the so-called "proto-megalithic" monuments and small monuments with an incipient Corridor of Deserto (D), Barrocal das Freiras (BF) and Lobeira de Cima (LC).

decorated pottery (combining imprinted and incised motifs). This evokes typical decorations of the evolved Early Neolithic, or an early phase of the Middle Neolithic (Fig. 8). We dare to say, with all caution due to the set's specific features, that this could correspond to one of the first monuments that were built and used in the "necropolized" space of Deserto and Barrocal das Freiras.

Type 5 monuments already present votive sets characterized by the presence of engraved schist plaques, retouched flint blades, bifacial points (arrowheads and spearheads, daggers, "halberds") and abundant pottery (Fig. 9). These are clearly collective monuments – as evidenced by approximately 70 engraved schist plaques (some with oculate motifs, already relatable to the Chalcolithic archaeometallurgical communities) collected at Barrocal das Freiras 3, indicating a minimum of 70 buried individuals, safeguarding the possibility of burials not accompanied by this type of artefacts.

As regards their distribution, Type 1 to 4 monuments are concentrated in the central areas of the "necropolized" spaces, and Type 5 monuments are located at the edges of the central clusters (but still spatially related, in a direct way, to them). Likewise, the "satellite-monuments" of the clusters of Deserto and Barrocal das Freiras also correspond, in architectural and votive terms, to monuments already considered "evolved" (Lobeira de Baixo 2, Espragal, Atalaia 1 and 2, Amendoeira 1 and 2), although earlier monuments

FIG. 8 Aspect of the votive set collected at the Deserto 14 monument, with special emphasis on the presence of a potsherd with composite decoration (imprinted and incised) and geometric armatures (crescents and triangles) obtained from bladelet.

FIG. 9 Examples of the votive sets collected at the "evolved" monuments of the megalithic clusters of Deserto and Barrocal das Freiras: engraved schist plaques from Deserto 1 (left) and Barrocal das Freiras 3 (right).

also exist in these peripheral areas (Salto do Lobo, Pego da Regina, Lobeira de Baixo 1 and 3) (Gonçalves and Andrade 2014-2015).

Interestingly, many of these earlier monuments (both "cistoid" open monuments and monuments with incipient Corridor) present somehow an "anomalous" orientation in this geographic context. They open towards the West (as registered in Deserto 3, 5, 13, 16 and 20 and Barrocal das Freiras 6), contrary to what is normal in almost all the megalithic monuments in Alentejo (cf. Gonçalves 1992; Parreira 1996; Oliveira 1998; Hoskin 2001; Oliveira *et al.* 2007; Andrade 2009). We may offer two explanations for this. First, the symbolic precept of orienting the monuments towards the East would not yet exist during the phases of construction and use of these monuments. Second, these monuments could have been built and used before this became a widespread practice, as proposed for Poço da Gateira 1 and 2 (Gonçalves 1999).

Another feature, found at the evolved monuments of Deserto 1 and Barrocal das Freiras 3, is the presence of up-rights on both sides, at the beginning of the Corridor, obliquely placed (approximately 45º) relatively to the axis. This may correspond to an intentional

narrowing of the monument's entrance or to support elements of a closing structure, made of stone (as seen in Santa Margarida 3) or wood.

Barrocal das Freiras 2 is a particularly interesting case. The only up-right still *in situ* of this large monument, placed at mid-slope, is approximately 4 meters tall. The Chamber's remaining up-rights collapsed, all in the same direction (pending-wise), and there is no sign record that it had a Corridor (although it would be natural if it did, given the monument's "evolved" architectural features). Likewise, the excavations conducted by Manuel Heleno did not identify any trace of its funerary use, with a total absence of archaeologic finds (contrasting with the abundance found at Barrocal das Freiras 3, adjacent to it). Our interpretation is that its specific topographic placement (a slope with an angle of approximately 35 degrees) did not ensure the monument's stability, due to its size – and therefore it collapsed before completion. Thus, this monument is possibly unfinished and was never used, like the dolmens of Monte Novo do Piornal, Cegonha 2 or Valdanta – monuments that never had a funerary use (Gonçalves 2013; Mataloto 2019; on the matter of unfinished or collapsed monuments, cf. Cummings – Richards 2016).

5. DESERTO 16, A KEY MONUMENT

Project OMEGA guidelines determine that any observations obtained during monument relocation works must be confirmed by new excavation works, preferably focused on the mound structures – which Manuel Heleno did not include in his excavations, limited to the interior spaces of the monuments (Chamber and Corridor). Each monument's construction sequence must be defined, and identification is required of any potential annexed structures (such as atrium areas, or secondary tombs) or occupation levels under the mound.

To this effect, excavation works have already been conducted at Deserto 16, previously excavated under the orders of Manuel Heleno in the 1938 Spring campaign (February to May), together with monuments 6 and 7 of Vidigal and monuments 7, 8, 11, 12, 13, 14 and 15 of Deserto (Fig. 10). This monument was chosen primarily due to the good preservation of its mound structure and certain presumed features of its architecture. The results of these new works are particularly enlightening, namely concerning the architectural features of this type of monument – and the respective construction sequences.

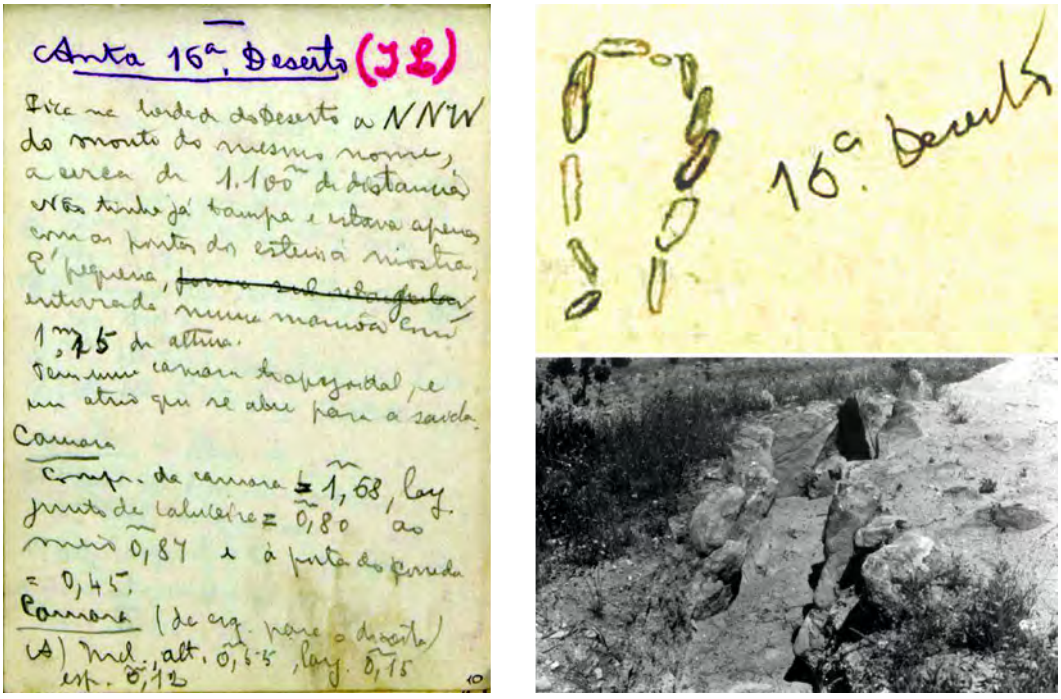


FIG. 10 Left, the entry on the monument of Deserto 16, in Manuel Heleno's notebook (Anta IL; *Caderno 33, Explorações nos Arredores do Siborro, Primavera de 1938 (Fevereiro a Maio),* fl. 10; APMH/2/1/11/33, accessible at MNA). Top right, schematic plan of the monument, show at fl. 12 of the same notebook. Bottom right, aspect of the monument at the end of the 1938 excavations (Arquivo MNA; Caixa 1, Envelope 77).

The tomb of Deserto 16 thus corresponds to a small monument with a "cistoid" trend, elongated, with a roughly pyriform plan (Type 3). It opens to the West, and the Chamber axis is oriented in the East-West direction, with a slight inflexion to West-Northwest at the entrance, forming a sort of "pseudo-Corridor". The Chamber has a roughly rectangular shape; its organization begins at the headstone (placed at the Eastern edge, transversal to its axis) with two up-rights at the North side and three uprights at the South side. The "pseudo-Corridor" is formed by two up-rights on both sides; the one located next to the Chamber (in the North side) resembles a small menhir-like pillar. The base of the Chamber was formed by a uniform pavement, limited to this space and absent from the area of the "pseudo-Corridor. This element was not identified

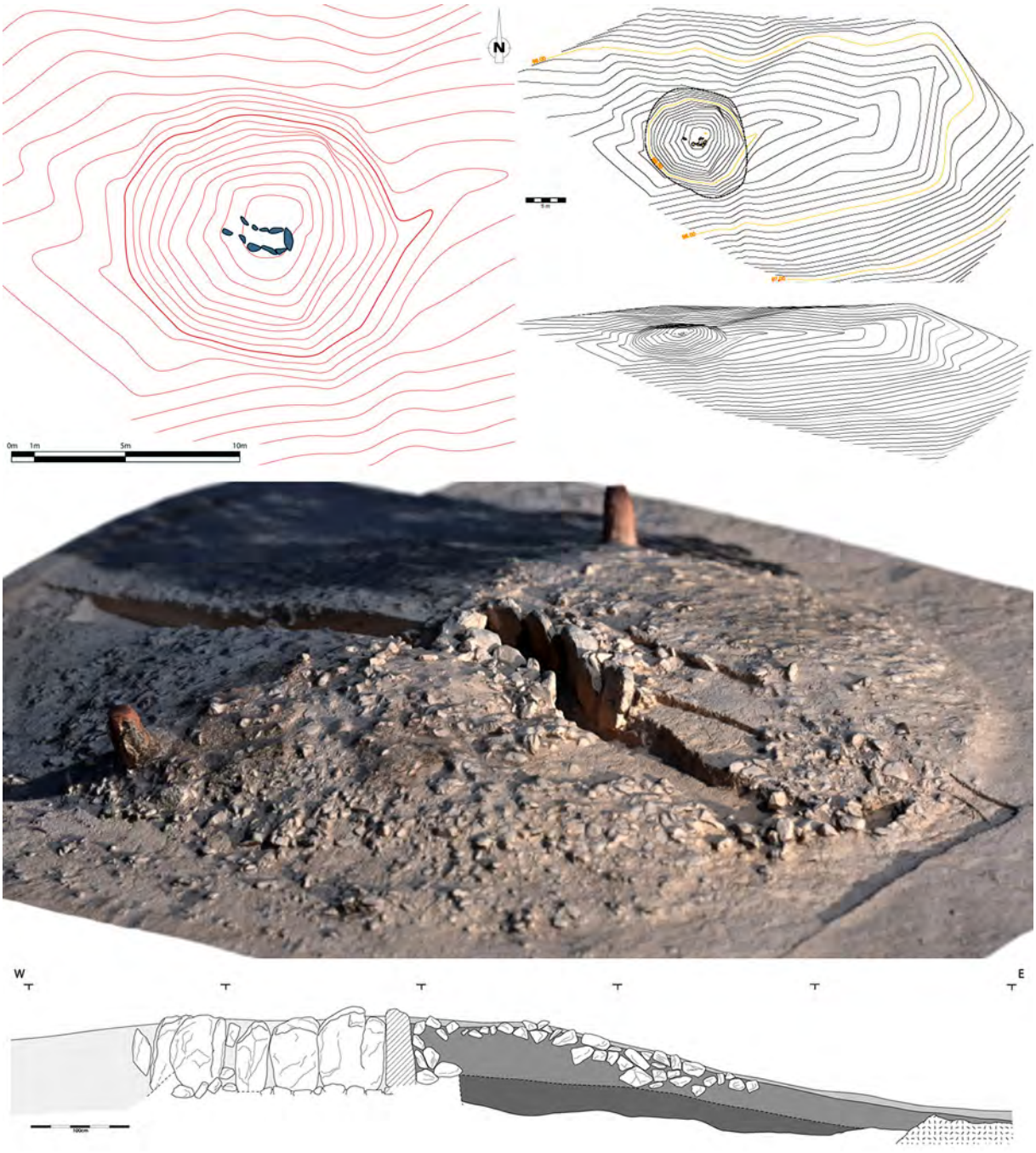


FIG. 11 Top left: topographic survey of the mound structure of Deserto 16 (equidistant level curves: 10 cm; redesigned using the survey made by the topography municipal team of Montemor-o-Novo). Top right: topographic survey of the spur where Deserto 16 is built (survey made by the topography municipal team of Montemor-o-Novo). Centre: isometric projection made using the ortophotogrametic survey of Deserto 16, after the excavation (survey by Carlos Carpetudo, *Morbase*). Bottom: stratigraphic profile (East-West) of the Northeast quadrant of the mound structure of Deserto 16, included in the Chamber's North side-elevation.

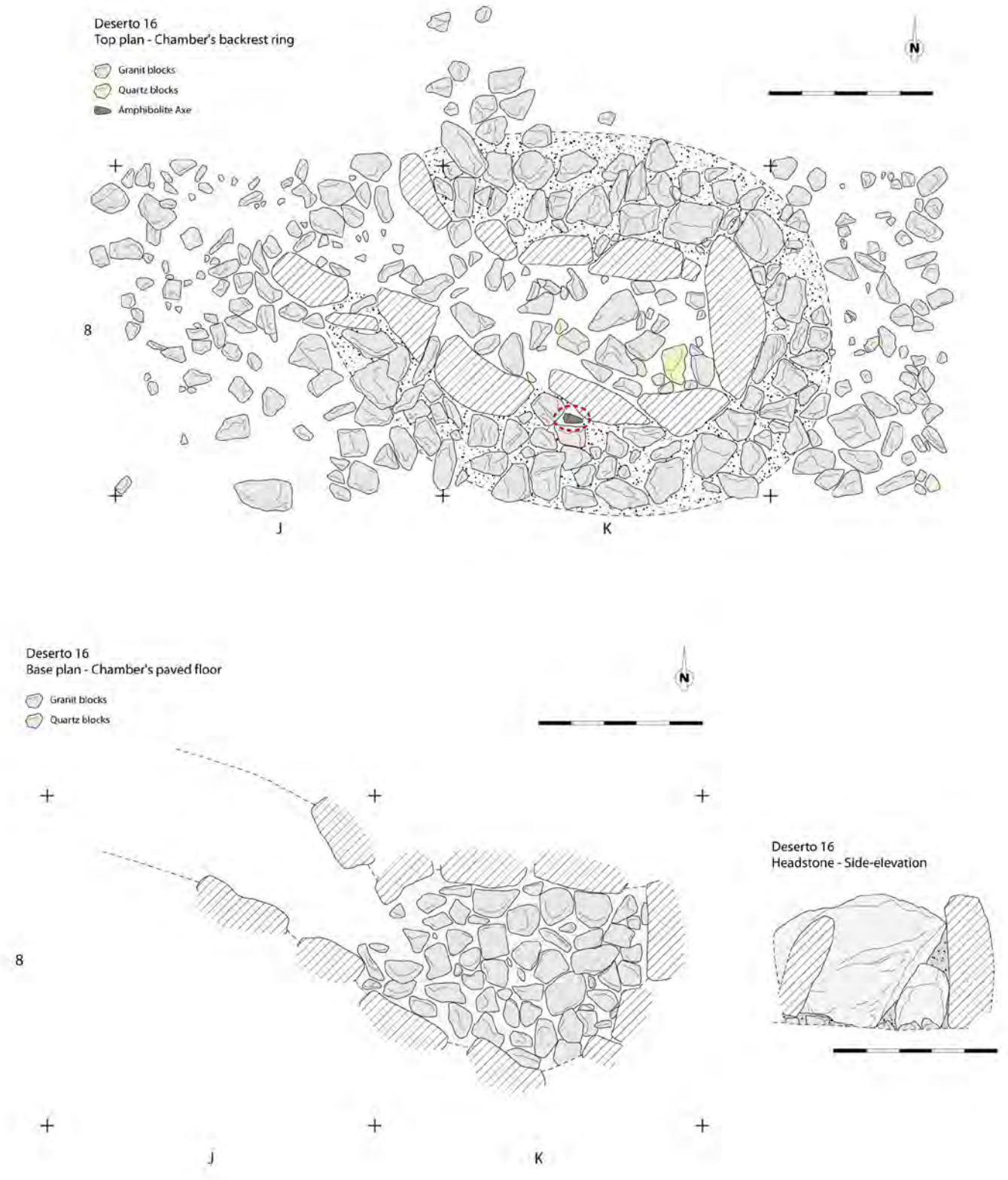


FIG. 12 Aspects of the monument of Deserto 16. Above, top plan with the Chamber's outer backrest ring, showing the location of the amphibolite axe K.8-2 (indicated by the red dashed ellipse). Below, base plan with the Chamber's paved floor; to the right, the interior side-elevation of the headstone, with the bridging block closing the empty space at its base (on the right side).

FIG. 13 Aspects of Deserto 16. Top left: aspect of the mound structure, seen from the West. Top right: aspect of the Chamber, seen from the North. Centre left, aspect of the Chamber's pavement. Centre right: aspect of the headstone, with a rectifying wedge. Bottom left: aspect of the stratigraphy of the mound structure, showing the peripheral ring in side-elevation. Bottom right: aspect of the K.8-2 axe ***in situ***, between the backrest blocks outside the Chamber.

during the works of Manuel Heleno, since his excavation was interrupted (insofar as we can tell from the last photograph of his 1938 campaign), slightly before this level was reached (approximately 10/15 cm).

The Chamber has an internal width of about 1,20 m, with a length of about 1,60 m (2,60 m if we add the length of the "pseudo-Corridor") and about 0,90 m of maximum height.

The *Tumulus* keeps most of its original height (±1,50 m), has a roughly oval shape and a diameter of approximately 12 metres; it is formed by a sandy silt granite-like sediment and is delimited by a peripheral ring

("external perimetric ring"), approximately 0,80 m wide, built with medium-size granite blocks (which is most likely a contention structure than a delimitation structure). In the outer side of the Chamber, and around it, there is a backrest ring ("internal perimetric ring"), also formed by medium-size granite blocks, which extend from the *Tumulus* top to its base. Between these two rings, the *Tumulus* was covered by smaller stone blocks (granite and quartz), only at the upper level, forming a genuine stone shield. The filling of the *Tumulus* itself consists of sediments and a few granite clasts. The use of quartz blocks in the *Tumulus'* coverage is a very well documented practice in the megalithic context of Southwest Iberia, especially in small-size monuments – possibly meant to give the monument a certain prominence in the landscape, triggered by the chromatic shock (cf. for example Andrade, 2009).

The granite base seems to have been prepared, forming a sort of sub-elevated platform, when compared to the original topography of the bedrock, that is filled with granite "gravel", corresponding to the base of the *Tumulus*. The monument was then built on this sub-elevated platform (Figs. 11 to 13).

In this case, these new works (specifically the results obtained from the excavation of probing ditches at the mound structure) allowed to serialize the construction sequence of the tomb of Deserto 16. According to the parameters defined for Antequera, in Ferrer Palma *et al.*, 2004, we found the following construction phases (Fig. 14):

Phase 1 – Preparation and levelling of the laying base, with shaping and sub-elevation of the geologic substratum.
Phase 2 – Creation of the perimetric ramp for the placement for orthostats, formed by silt-sandy sediments with small granitic clasts ("gravel"), corresponding to the base level (lower layer) of the *Tumulus*.
Phase 3 – Placement of the orthostats, by sliding along the perimetric ramp.
Phase 4 – Filling and smoothing of the empty space between the placed orthostats and the perimetric ramp with medium-size stone blocks (internal perimetric ring" or "backrest") with possibly anchored and locked orthostats to avoid collapse caused by lateral pressure.
Phase 5 – Placement of the capstone(s) using the perimetric ramp, which applies vertical pressure on the orthostats to keep them in place
Phase 6 – Construction of the perimetric contention/ delimitation ring ("external perimetric ring") formed by rows of medium-size blocks, outlining the perimeter of the mound structure.
Phase 7 – Creation of the *Tumulus'* upper layer using silty sediment with small-size stone blocks (including granite and quartz), especially concentrated in the upper levels ("stone shield"), limited by the "external perimetric ring").
Phase 8 – Levelling and smoothening of the Chamber's floor using silt-sandy sediment, and placement of the base pavement.
Phase 9 – Just one funerary use.

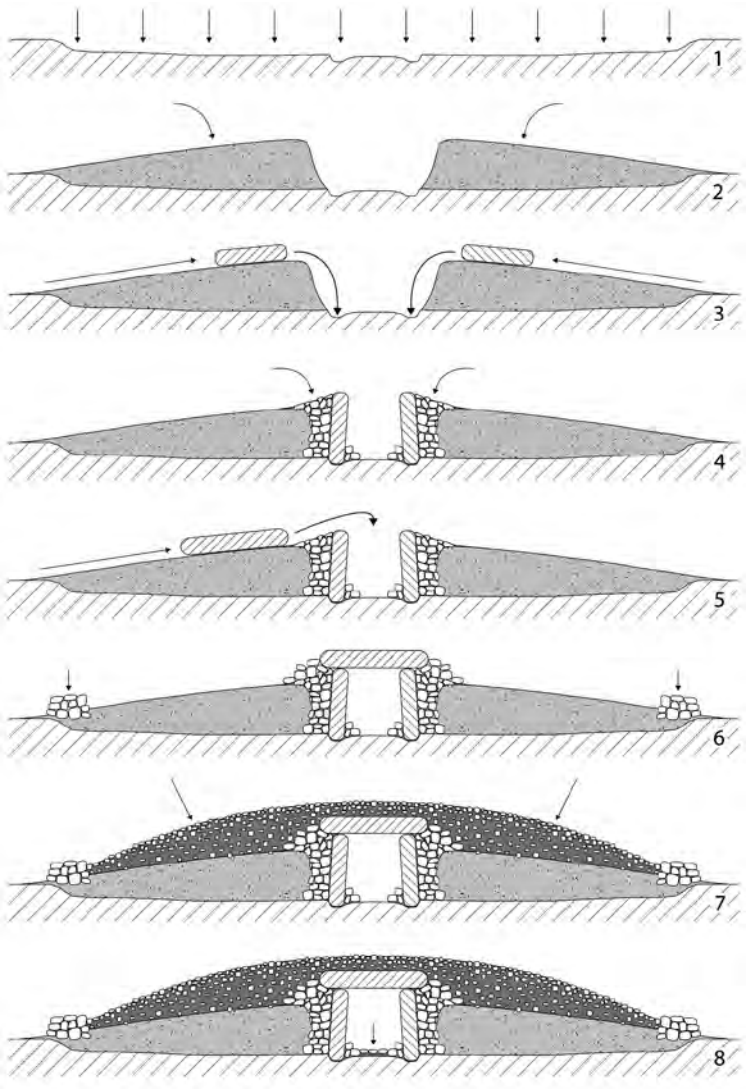


FIG. 14 Schematic representation of the construction sequence defined for Deserto 16, according to the data gathered in the excavation of the mound structure (phases described above).

As regards landscape integration, the monument is placed at the centre of a small spur overlooking Ribeira dos Pegos, in its confluence with Ribeira do Espragal. This spur unfolds to the West from the bottom of the plateau, where we can find the monuments of Deserto 5, 13, 14, 15 and 18. This topographic constraint therefore limits its visibility to the Northwest and Southwest quadrants. Visibility is none the less fine over the surrounding landscape towards the Northeast and the Southeast, which correspond to the valleys of Ribeira do Pegos and Ribeira do Espragal. To the North, it is also possible to see all the flat area of the right bank of Ribeira de Lavre and the residual reliefs of the Pedrogão area. The monument's placement has a stronger impact on people approaching it from the East (boosted by the presence of a big and isolated outcrop of migmatitic gneiss, a few meters from the monument, at the spur's edge), and is only punctually visible to people approaching it from the West.

Excavations conducted by Manuel Heleno at this monument yielded a small votive set (which is a feature of these earlier megalithic contexts). It consists of an uncharacteristic potsherd, an axe, a flint bladelet, and a limestone (?) elongated barrel-shaped necklace bead – possibly indicating an individual burial. During the most recent intervention, a bladelet and a flint trapezoid microlith were collected at the edge of the *Tumulus* (Northwest quadrant), along with an amphibolite axe deposited between the exterior backrest blocks of the Chamber (in its South side, leaning against the external side of the second up-right), deliberately covered with a granitic "gravel" deposit (as seen in Figs. 12 and 13). These may indicate intentional ritual deposition, possibly conducted during the construction of the monument, immediately before its first funerary use.

The best parallel known for this tomb, in addition to some others excavated by Manuel Heleno in this region, is the monument of Entreáguas 5, Mora; it shares with Deserto 16 not only the architectural details (being also a small elongated tomb with a piriform trend, open to the West), but also the putative chrono-cultural levels of use, apparently centered around the mid-4th millennium BCE (Leisner – Leisner 1959; Rocha 1999; Mataloto *et al*. 2016-2017).

6. PRELIMINARY ASSESSMENT

The region of Montemor-o-Novo can be considered one of the key areas to understand (and clearly define) the origins and development of "Portuguese" Megalithic Culture, both in the specific context of Middle Alentejo and in the general context of Southwestern Iberia. In fact, here we find every evolutionary stage of the megalithic phenomenon, from the so-called small "proto-megalithic" cistoid tombs to the corbel-vaulted monuments (represented by the funerary monument of Escoural, although this does not exactly correspond to a "classic" *tholos*). Tombs with differentiated Chamber and Corridor (passage graves) are highly expressive (from monuments with a short Corridor to monuments with a long Corridor, such as Comenda da Igreja). In general, the timeframe of these monument types ranges from the second quarter of the 4th millennium to the mid-3rd millennium BCE – i.e. from the origins to the heyday of the Alentejo Megalithic Culture (cf. Boaventura 2011; Boaventura – Mataloto 2013; Mataloto *et al.* 2016-2017). The region of Montemor-o-Novo therefore illustrates the entire diachrony of the megalithic phenomenon and its different construction forms.

In this context, and in general geographic terms, it is quite interesting to acknowledge that the main so-called "proto-megalithic" tombs (or, in cultural terms, the "inauguration" of megalithic landscapes; cf. Silva – Soares 2000) are located at the interface between Alentejo and "Charneca do Ribatejo" (or, geologically speaking, between the Hercynian substratum and the Tagus's Tertiary filling), represented here by the "proto-megalithic" groups of Montemor-Coruche (precisely where we find the megalithic clusters of Deserto and Barrocal das Freiras). They are equally recognized in other Alentejo monuments, such as in the groups of Montargil, Mora and Avis (Leisner – Leisner 1953; 1959; Rocha 1999; Andrade 2009; 2013a). This suggests that, even theoretically speaking, the penetration routes of the megalithic communities of the Neolithic had a West-East orientation (from the coast to the hinterland), a fact already evidenced by Manuel Heleno, based on his excavations, in approximately three hundred monuments in Alentejo (and considering the dispersion of the engraved schist plaques as a feedback chain occurred a few generations later, during the Late Neolithic and Early Chalcolithic).

Nevertheless, we should recall that "proto-megalithic" monuments are also found, although not so obviously concentrated, in more interior areas such as Évora, Redondo, Estremoz and Monforte (Leisner – Leisner 1959; Mataloto *et al.* 2015; 2016-2017; Andrade *et al.* 2018). They are however quite rare in the area of Reguengos de Monsaraz (Leisner – Leisner 1951; Gonçalves 1992; 1999; 2013; Gonçalves – Sousa 1997; 2000; 2012).

These penetration routes (or at least these interactions) are well evidenced by the funerary use of the Escoural Cave (Araújo – Lejeune 1995), which has perfect parallels (chronologically and culturally) in contemporary uses of caves of Portuguese Estremadura; among others, the caves of Lugar do Canto, or Bom Santo (Cardoso – Carvalho 2008; Carvalho – Cardoso 2015; Carvalho 2014). According to radiocarbon dates available for the karst context mentioned above, their funerary uses are more or less contemporary to those observed at the small "proto-megalithic" tombs of Alentejo, which had their heyday around the mid-4th millennium BCE (cf. Boaventura 2011; Boaventura – Mataloto 2013; Mataloto *et al.* 2016-2017). In this case, and in chronological terms, two different funerary principles coexist in the region of Montemor-o-Novo (the clusters of Deserto and Barrocal das Freiras are just approximately 25 km Northwest of Escoural Cave).

The specific features of certain votive sets from both areas (Estremadura and Alentejo) give evidence of such contacts (Gonçalves 2008, 2011; Gonçalves *et al.* 2014; Andrade 2013b, 2015; Andrade *et al.* 2010). They have been recently confirmed by isotopic analysis of human remains collected in funerary contexts of Estremadura, dated from the second half of the 4th and the first quarter of the 3rd millennium BCE (Bom Santo, Cova da Moura and Cabeço da Arruda 1, cf. Carvalho 2014; Waterman *et al.* 2013; Silva 2003; Lillios *et al.* 2014). These data point at active interactions at least since the Middle Neolithic (but were possibly outlined since the Early Neolithic), clearly explained by logistic actions aimed at obtaining key raw materials (Gonçalves 2007; Sousa – Gonçalves 2012; Thomas 2011; Andrade 2020).

These contacts are particularly well illustrated at the clusters of Deserto and Barrocal das Freiras – evidenced by both the chronological and cultural homogeneity shared with other funerary contexts of Southwestern Iberia and the features of the raw materials used in their votive sets (mainly the flint used in the flaked stone artefacts, since the amphibolite used in

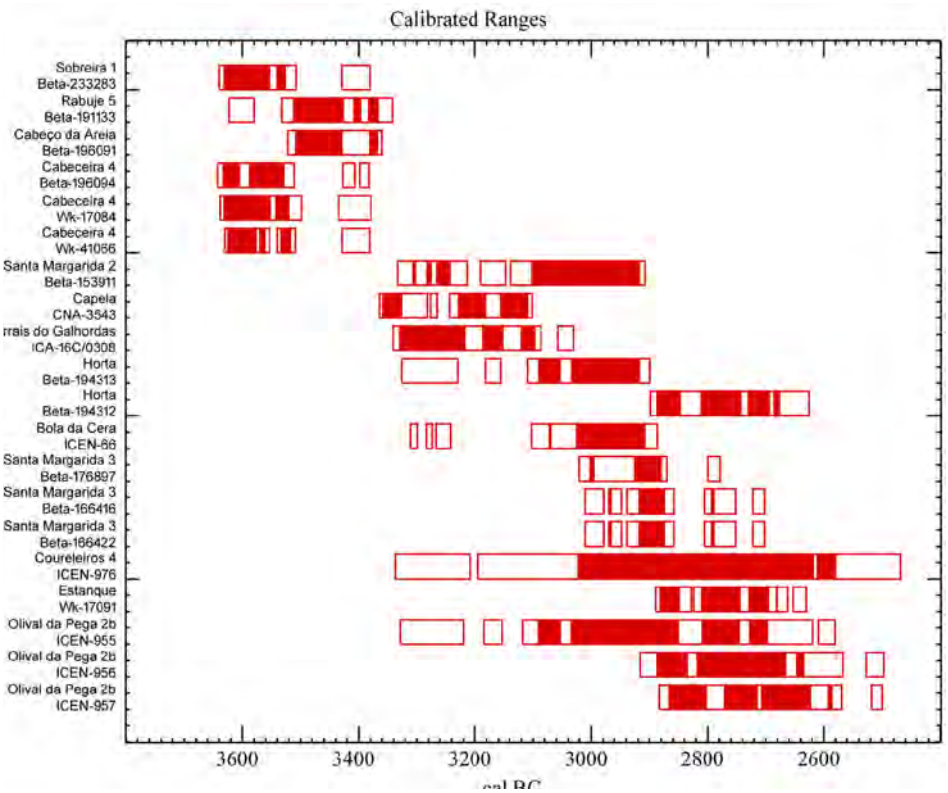


CHART 2 ^{14}C dates for megalithic monuments in inner Alentejo; dates for later reuses in the Late Chalcolithic and Bronze Age are not shown. Bibliography: Andrade 2020 (Capela); Boaventura 2006 (Rabuje 5); Boaventura *et al.* 2013 (Sobreira 1); Carvalho – Rocha 2016 (Cabeceira 4); Gonçalves 2001 (Santa Margarida 2); Gonçalves 2003a (Santa Margarida 3 and Olival da Pega 2b); Monteiro-Rodrigues – Oliveira 2018 (Currais do Galhordas); Oliveira 1998 (Bola da Cera and Coureleiros 4); Oliveira 2006 (Horta); Rocha 2005 (Cabeço da Areia, Cabeceira 4 and Estanque). Dates recalibrated in 2020, using the software Calib 8.20 (© M. Stuiver and P. J. Reimer, 1986-2020), with the IntCal20.14c calibration curve (Reimer *et al.* 2020, Radiocarbon 62). 2σ interval with a 95.4% probability.

TABLE 1 ^{14}C DATES FOR MEGALITHIC MONUMENTS IN INNER ALENTEJO, RECALIBRATED IN 2020, USING THE SOFTWARE CALIB 8.20*

TOMB	LAB REFERENCE	SAMPLE	DATE BP	CAL BC 2Σ	BIBLIOGRAPHY
Sobreira 1	Beta-233283	Human bone	4770±40	3640-3381	Boaventura *et al.*, 2013
Rabuje 5	Beta-191133	Charcoal (*A. unedo*)	4650±50	3623-3342	Boaventura, 2006
Cabeço da Areia	Beta-196091	Human bone	4650±40	3522-3360	Rocha, 2005
Cabeceira 4	Beta-196094	Human bone	4780±40	3643-3383	Carvalho and Rocha, 2016
Cabeceira 4	Wk-17084	Human bone	4759±41	3638-3379	Carvalho and Rocha, 2016
Cabeceira 4	Wk-41066	Human bone	4742±20	3630-3382	Carvalho and Rocha, 2016
Santa Margarida 2	Beta-153911	Charcoal (*E. umbellata*)	4410±60	3333-2907	Gonçalves, 2001
Capela	CNA-3543	Human bone	4532±30	3364-3102	Andrade, 2020
Currais do Galhordas	ICA-16C/0308	Charcoal (*Quercus*)	4480±30	3341-3031	Rodrigues and Oliveira, 2018
Horta	Beta-194313	Human bone	4390±50	3326-2899	Oliveira, 2006
Horta	Beta-194312	Human bone	4190±50	2898-2626	Oliveira, 2006
Bola da Cera	ICEN-66	Human bone	4360±50	3310-2886	Oliveira, 1998
Santa Margarida 3	Beta-176897	Human bone	4290±40	3020-2778	Gonçalves, 2003a
Santa Margarida 3	Beta-166416	Human bone	4270±40	3010-2702	Gonçalves, 2003a
Santa Margarida 3	Beta-166422	Human bone	4270±40	3010-2702	Gonçalves, 2003a
Coureleiros 4	ICEN-976	Charcoal	4240±150	3337-2468	Oliveira, 1998
Estanque	Wk-17091	Human bone	4182±39	2889-2631	Rocha, 2005
Olival da Pega 2b	ICEN-955	Human bone	4290±100	3329-2581	Gonçalves, 2003a
Olival da Pega 2b	ICEN-956	Human bone	4180±80	2916-2497	Gonçalves, 2003a
Olival da Pega 2b	ICEN-957	Human bone	4130±60	2883-2499	Gonçalves, 2003a

* (© M. Stuiver – P. J. Reimer 1986-2020), with the IntCal20.14c calibration curve (Reimer *et al.* 2020, *Radiocarbon* 62). 2σ interval with a 95.4% probability.

the polished stone artefacts is locally available). In fact, this area is located in one of the access corridors preferentially used by Neolithic communities to enter the Alentejo hinterland, occupying the ridgeline between the Ribeira do Lavre and River Almansor watersheds.

The region of Montemor-o-Novo thus seems to be one of the focal points in the appearance of Megalithic Culture in Southwestern Iberia and can be considered a key area to understand its origins and evolution, as all its evolution stages are represented here. Be that as it may, we still lack an ensemble of radiocarbon dates for the megalithic contexts of Montemor-o-Novo – there is only one date for the small tomb of Cabeço da Areia (Rocha – Duarte 2009). Some dates already available for other monuments in Upper and Middle Alentejo (sharing obvious cultural affinities with the monuments of Montemor-o-Novo) make it possible to serialize the stages of this evolution, considering both architectural features and votive sets (Chart 2).

By analysing those dates and comparing them with the votive sets identified in dated monuments, we can establish two main chronological and cultural phases

in the evolution of funerary rituals of the megalithic communities in Alentejo, regardless the architectural features of the monuments representing them.

In phase one, chronologically spanning from the second to the last quarter of the 4th millennium BCE (corresponding to the full Middle Neolithic, or an early stage of the Late Neolithic), we find votive sets dominated by polished stone artefacts, small unretouched blades and geometric armatures, with scarce or absent pottery – found both in "proto-megalithic" tombs (Cabeço da Areia, Rabuje 5) and small monuments with incipient Corridor (Cabeceira 4, Santa Margarida 2).

Phase two, corresponding to the last centuries of the 4th millennium and possibly extending to the mid-3rd millennium BCE, is defined by the association of engraved schist plaques with bifacial points (including large sets of arrowheads), retouched blades and abundant pottery, recognized in monuments with medium to long Corridor (Horta, Coureleiros 4, Santa Margarida 3) and *tholoi* (Olival da Pega 2b).

Therefore chronology, based only on available absolute dates, places the Megalithic Culture of Alentejo in the time frame ranging from the mid-4th millennium and the mid-3rd millennium BCE, a bracket that includes monuments as different as the small so-called "proto-megalithic" tombs, dolmens with incipient Corridor, dolmens with medium-to-long Corridor and *tholoi*. Thus, we can identify a seemingly time coexistence (evidencing a certain cultural continuity) between the last "proto-megalithic" tombs (such as Cabeço da Areia) and the first monuments with incipient Corridor (such as Cabeceira 4 and Santa Margarida 2), on one hand, and the last monuments with medium / long Corridor (such as Santa Margarida 3 and Horta) and the first *tholoi* (such as Olival da Pega 2b), on the other hand. In this time frame, we should also consider the use of karst cavities (represented by the Escoural Cave, in the region of Montemor-o-Novo), as well as hypogea (also known in the innermost areas of Alentejo). More than a linear evolution, with instant substitution of architectural models, there seems to be a gradual evolution extended throughout Time with an apparent coexistence of different construction solutions at a given moment (Calado 2003; Rocha 1999; 2005; Mataloto *et al.* 2016-2017).

In this framework, the group of Deserto and Barrocal das Freiras is extremely important to define the development models of Megalithic Culture in Southwestern Iberia. In fact, Manuel Heleno had already understood its importance for this specific domain, considering it the evolutionary paradigm of the Megalithic Culture in Alentejo. Using the data collected in this region, he established the theoretical models for the origins and development of Megalithism and defined the types of interactions among megalithic communities.

As mentioned above, the megalithic clusters of Deserto and Barrocal das Freiras consist mainly of monuments representing an early stage of the Megalithic Culture of Alentejo, possibly rooted to an advanced stage of the Evolved Early Neolithic, but with a clear development in the full Middle Neolithic (cf. Leisner 1966; Guilaine 1996; Silva 1997; Silva – Soares 1983; 2000; Soares, 1996; Boaventura – Mataloto 2013; Mataloto *et al.* 2015; 2016-2017). These are "proto-megalithic" monuments with a cistoid trend, or small monuments with incipient Corridor (Deserto 2 to 23, Barrocal das Freiras 4 to 10, Lobeira de Cima 1 to 3) concentrated in an area with approximately 15 km^2, surrounded by monuments that may potentially be considered as evolved due to their architecture and the composition of their votive sets (Deserto 1, Barrocal das Freiras 2 to 3).

We can therefore propose that the construction of this "necropolized space" apparently evolved from the centre to the periphery; the earlier monuments are placed in the central area of the megalithic space, "inaugurating" this megalithic landscape, and the most recent monuments were built in its immediate surroundings (as shown in Fig. 3). This also seems to have happened at the cluster of Montargil (Leisner – Leisner 1953; 1959) and the smaller cluster of São Martinho – Paço Branco, Avis (Andrade 2009 ; 2013a).

In places already considered peripheral (but still spatially relatable to the clusters of Deserto and Barrocal das Freiras), these nuclear monuments are associated with what we may consider "satellite-monuments" of this funerary "territory", distributed through the entire chronological span of the central clusters and represented by the monuments of Salto do Lobo, Lobeira de Baixo 1 to 3, Atalaia 1 and 2, Amendoeira 1 and 2, and Espragal (the latter already published by Gonçalves and Andrade, 2014-2015, in a paper discussing this particular issue).

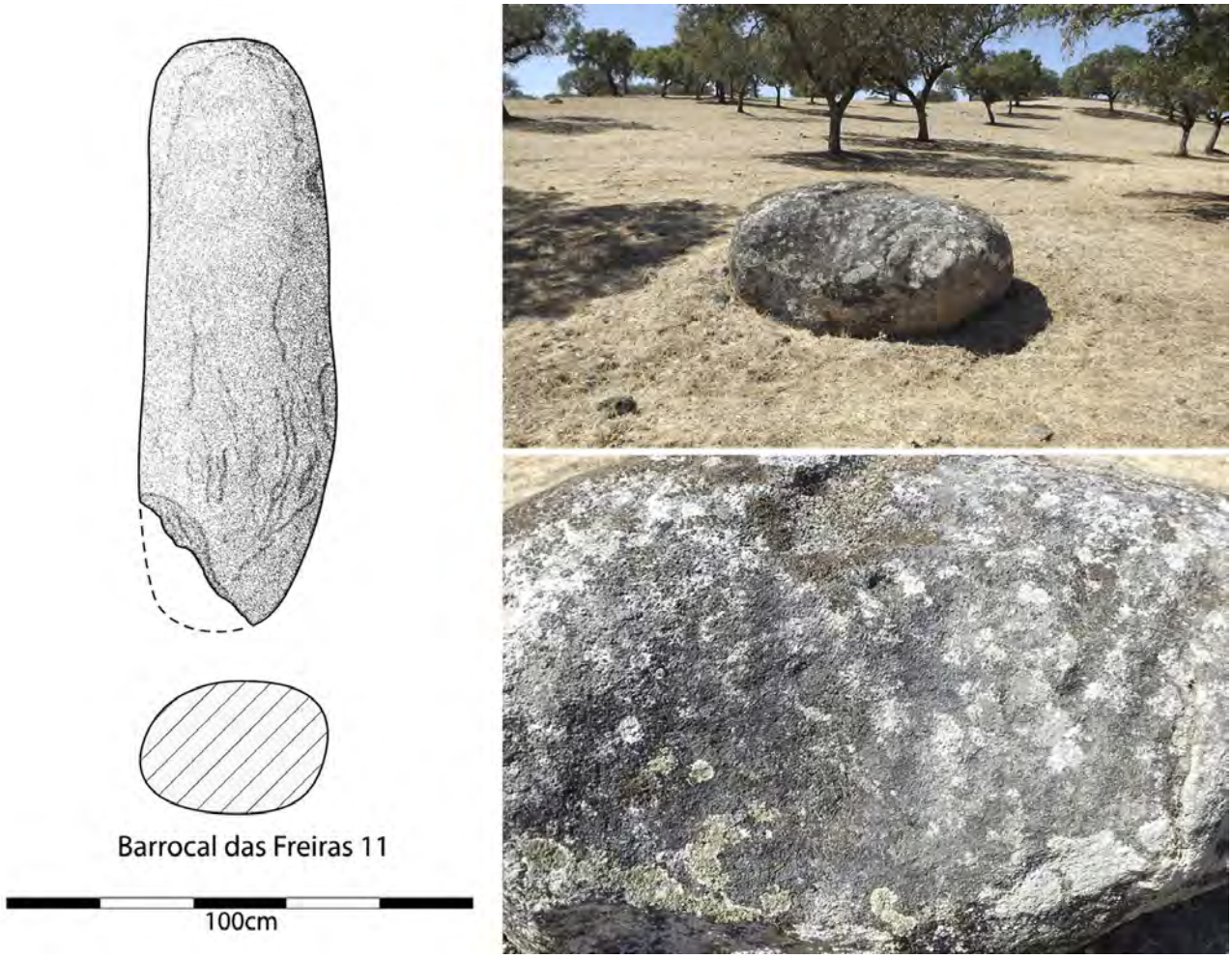


FIG. 15 Graphic survey of the small menhir of Barrocal da Freiras 11 and aspect of the outcrop with "cup-marks" of de Barrocal das Freiras 12, which is contiguous to it.

The interpretation of this layout allows for a few pertinent questions about the typological evolution of the megalithic monuments in Alentejo and the diachronic configuration of a necropolis as a sacred space. These monuments enable us to presume that the use of this space by the megalithic communities living in this area followed active diagrams (from the perspective of a strict characterization of territorial use patterns). We can also consider them dynamic elements in the construction of the "necropolized" space formed by the central clusters of Deserto and Barrocal das Freiras, valid components for understanding the construction of this megalithic landscape and the management models of the places for the Dead by the ancient peasant communities of the 4th e 3rd millennia BCE in the area of Montemor-o-Novo.

This specific concentration reveals the group identity expressed by the monuments according to their spatial distribution, evidencing the gregarious behaviour of the megalithic communities *vis-à-vis* the places for the Dead, and stating their local individuality versus other groups.

Obviously, it is extremely important to recognise the settlement spaces of the builders and users of those monuments, while defining the active diagrams of space use – and this is also one of the objectives of project OMEGA. However, data is still inconclusive, and few settlements have been identified in the area – associated with contexts already from the Chalcolithic (such as the several *loci* of Lobeira de Cima). As for places potentially related with the construction and use of these monuments during the second half of the 4th millennium BCE, we can only mention the site of Campo do Espragal, possibly a typical "open megalithic settlement" datable from the Middle/Late Neolithic (Calado 2001; 2004). The site of Foros de Vale de Figueiras 2, placed over a small riverain terrace, is possibly an area where raw materials were obtained;

a set of hammerstones, quartzite choppers and quartz cores was identified here.

Maybe this apparent scarcity of habitational spaces is solely due to archaeographic contingencies, as the relatively large number of monuments suggests more complex settlement patterns. Settlements were possibly located in lowlands, in valleys, and today they may be concealed under colluvium deposits. Reference should be made to the landscape of Barrocal das Freiras, with many granite geological formations, some of which providing real shelters that could potentially be used for settling by the Middle-to-Late Neolithic communities (above, Fig. 2). State-of-the-art knowledge currently available prevents us from making any specific assumptions, as settlements in this area are evidenced only by a few, not very conclusive, isolated, or scattered findings. Further fieldwork is needed to clarify this issue.

Other features of this megalithic landscape are represented by other contemporary manifestations, such as non-funerary monuments and the so-called rocks with "cup-marks" – herein represented by the elements of Barrocal das Freiras 11 and 12, identified during this project in an area close to the small tomb of Barrocal das Freiras 10 (Fig. 15). However, this kind of occurrences may be even better represented in this area, especially around Barrocal das Freiras and Lobeira de Cima (as seen in Manuel Heleno's references to the rocks with "cup-marks" of Pedras Furadas, Pego do Mourão and Rapozeiras). New prospection works, specifically oriented to define this issue, must be planned.

The importance of the megalithic clusters of Deserto and Barrocal das Freiras for defining the origins and development of Megalithic Culture (and the composition of megalithic landscapes), between the second quarter of the 4th millennium and the mid-3rd millennium BCE, is now demonstrated. Reference should also be made to the extended use of this space as a "funerary territory" until the late 3rd millennium and the first half of the 2nd millennium BCE. The continuity of its "sacred" character is thus recognized, not only by the creation of new funerary areas (such as the so-called "graves" of Barrocal das Freiras, from the Bronze Age) but also by the late reuse of some megalithic monuments. This is evidenced by the *Palmela-type* arrowhead found at Deserto 1 and the radiocarbon date attributed to the individual, already from the Bronze Age, found at the Chamber of Barrocal das Freiras 3 (Wk-17086: 3355±35 BP, according to Rocha and Duarte, 2009, p. 772, recalibrated in 2016 using the software Calib 7.0.1, and the IntCal13.14c calibration curve, providing the result 2σ with a 95.4% probability: 1741-1533 Cal BC). Maybe these occurrences correspond to something similar to what has been found in the group of Cebolinhos, Reguengos de Monsaraz, concerning both the late reuse of the original monuments and the construction of new burial spaces related with them (Leisner – Leisner 1951; Gonçalves, 2003b; Gonçalves – Calado 1990-1991). Rather than simple reuse (or continued use) of the monuments themselves, we have here an intentional, comprehensive use of a whole "funerary territory" adapted to new social contingencies.

In this light, the area of Deserto and Barrocal das Freiras can be considered a significant sacred space with funerary character, transversal to the long diachrony of ancient peasant societies. It was used (not necessarily continuously) during approximately two millennia – from its "inauguration" as a burial area in the Middle Neolithic, to the reinterpretation and reintroduction of ancient monuments (and the physical space itself) in the new socio-cultural discourses and symbolic conceptions developed by the communities of the Late Chalcolithic and Early Bronze Age, in Middle Alentejo.

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Zatoichi, the blind swordsman, was the hero of a long series of japanese movies (from 1962 to 1973 and 1989) and a television series. A new film was produced as a creative fusion of some of the episodes in 2003, directed by Takeshi Kitano.

AVALIADORES *OPHIUSSA* (2018-2020)

Adolfo Fernández Fernández
Ahmed Mcharek
Albert Ribera i Lacomba
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POLÍTICA EDITORIAL

A *Ophiussa* – Revista do Centro de Arqueologia da Universidade de Lisboa foi iniciada sob a direcção de Victor S. Gonçalves em 1996, tendo sido editado o volume 0. O volume 1 (2017) é uma edição impressa e digital da UNIARQ – Centro de Arqueologia da Universidade de Lisboa.

O principal objectivo desta revista é a publicação e divulgação de trabalhos com manifesto interesse, qualidade e rigor científico sobre temas de Pré-História e Arqueologia, sobretudo do território europeu e da bacia do Mediterrâneo.

A *Ophiussa* – Revista do Centro de Arqueologia da Universidade de Lisboa publicará um volume anual. A partir de 2018, os artigos submetidos serão sujeitos a um processo de avaliação por parte de revisores externos (peer review). O período de submissão de trabalhos decorrerá sempre no primeiro trimestre e a edição ocorrerá no último trimestre de cada ano.

A revista divide-se em duas secções: artigos científicos e recensões bibliográficas. Excepcionalmente poderão ser aceites textos de carácter introdutório, no âmbito de homenagens ou divulgações específicas, que não serão submetidos à avaliação por pares. Isentas desta avaliação estão também as recensões bibliográficas.

Todas as submissões serão avaliadas, em primeira instância, pela Coordenação Editorial, no que respeita ao seu conteúdo formal e à sua adequação face à política editorial e às normas de edição da revista. Os trabalhos que cumprirem estes requisitos serão posteriormente submetidos a um processo de avaliação por pares cega / *blind peer review* (mínimo de dois revisores). O Conselho Científico, constituído pela direcção da UNIARQ e por investigadores externos, acompanhará o processo de edição.

Esta etapa será concretizada por investigadores externos qualificados, sendo os respectivos pareceres entregues num período não superior a três meses. Os revisores procederão à avaliação de forma objectiva, tendo em vista a qualidade do conteúdo da revista; as suas críticas, sugestões e comentários serão, na medida do possível, construtivos, respeitando as capacidades intelectuais do(s) autor(es). Após a recepção dos pareceres, o(s) autor(es) tem um prazo máximo de um mês para proceder às alterações oportunas e reenviar o trabalho.

A aceitação ou recusa de artigos terá como únicos factores de ponderação a sua originalidade e qualidade científica. O processo de revisão é confidencial, estando assegurado o anonimato dos avaliadores e dos autores dos trabalhos, neste último caso até à data da sua publicação.

Os trabalhos só serão aceites para publicação a partir do momento em que se conclua o processo da revisão por pares. Os textos que não forem aceites serão devolvidos aos seus autores. O conteúdo dos trabalhos é da inteira responsabilidade do(s) autor(es) e não expressa a posição ou opinião do Conselho Científico ou da Coordenação Editorial. A Revista *Ophiussa* segue as orientações estabelecidas pelo *Commitee on Publication Ethics* (COPE, Comité de Ética em Publicações): https://publicationethics.org/.

O processo editorial decorrerá de forma objectiva, imparcial e anónima. Erros ou problemas detetados após a publicação serão investigados e, se comprovados, haverá lugar à publicação de correções, retratações e/ou respostas. As colaborações submetidas para publicação devem ser inéditas. As propostas de artigo não podem incluir qualquer problema de falsificação ou de plágio. Para efeito de detecção de plágio será utilizada a plataforma URKUNDU (https://www.urkund.com/pt-br/).

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Os textos propostos para publicação devem ser inéditos e não deverão ter sido submetidos a qualquer outra revista ou edição electrónica. Aceitam-se trabalhos redigidos em português, inglês, espanhol, italiano e francês.

Esta edição disponibiliza de imediato e gratuitamente a totalidade dos seus conteúdos, em acesso aberto, de forma a promover, globalmente, a circulação e intercâmbio dos resultados da investigação científica e do conhecimento.

A publicação de textos na *Ophiussa* – Revista do Centro de Arqueologia da Universidade de Lisboa não implica o pagamento de qualquer taxa nem dá direito a qualquer remuneração económica.

Esta publicação dispõe de uma versão impressa, a preto e branco, com uma tiragem limitada, que será distribuída gratuitamente pelas bibliotecas e instituições mais relevantes internacionalmente, e intercambiada com publicações periódicas da mesma especialidade, que serão integradas na Biblioteca da Faculdade de Letras da Universidade de Lisboa. Conta, paralelamente, com uma versão digital, a cores, disponibilizada no endereço www.ophiussa.letras.ulisboa.pt, onde se pode consultar a totalidade da edição.

Para mais informações: ophiussa@letras.ulisboa.pt

EDITORIAL POLICY

Ophiussa – Revista do Centro de Arqueologia da Universidade de Lisboa started in 1996, with the edition of volume 0. From 2017, this journal is a printed and digital edition of UNIARQ – Centro de Arqueologia da Universidade de Lisboa.

The main objective of this journal is the publication and dissemination of papers of interest, quality and scientific rigor concerning Prehistory and Archeology, mostly from Europe and the Mediterranean basin.

Ophiussa – Revista do Centro de Arqueologia da Universidade de Lisboa will publish an annual volume. From 2018, submitted articles will be subject to a peer-review evaluation process. The submission period will always occur in the first quarter of each year and the edition will occur in the last quarter.

The journal is divided into two sections: scientific articles and bibliographic reviews. Exceptionally, texts of an introductory nature may be accepted, in the context of specific tributes or divulgations, which will not be submitted to peer-review evaluation. Exemptions from this evaluation are also the bibliographic reviews.

All submissions will be considered, in the first instance, by the Editorial Board, regarding its formal content and adequacy in face of the editorial policy and the journal´s editing standards. Papers that meet these requirements will subsequently be submitted to a blind peerreview process (minimum of two reviewers). The Scientific Council, constituted by the directors of UNIARQ and external researchers, will follow the editing process.

This stage will be carried out by qualified external researchers, and their feedback will be delivered within a period of no more than two months. The reviewers will carry out the evaluation in an objective manner, in view of the quality and content of the journal; their criticisms, suggestions and comments will be, as far as possible, constructive, respecting the intellectual abilities of the author(s). After receiving the feedback, the author(s) has a maximum period of one month to make the necessary changes and resubmit the work.

Acceptance or refusal of articles will have as sole factors of consideration their originality and scientific quality. The review process is confidential, with the anonymity of the evaluators and authors of the works being ensured, in the latter case up to the date of its publication.

Papers will only be accepted for publication as soon as the peer review process is completed. Texts that are not accepted will be returned to their authors. The content of the works is entirely the responsibility of the author(s) and does not express the position or opinion of the Scientific Council or Editorial Board. The Journal *Ophiussa* follows the guidelines established by the Commitee on Publication Ethics (COPE, the Ethics Committee Publications): https://publicationethics.org/

The editorial process will be conducted objectively, impartially and anonymously. Errors or problems detected after publication will be investigated and, if proven, corrections, retractions and / or responses will be published. Contributions submitted for publication must be unpublished. Article submissions can not include any problem of forgery or plagiarism. In order to detect plagiarism, the URKUNDU platform will be used.

Illustrations that are not from the author(s) must indicate their origin. The Scientific Council and Editorial Board assume that the authors have requested and received permission to reproduce these illustrations and, as such, reject the responsibility for the unauthorized use of the illustrations and legal consequences for infringement of intellectual property rights.

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Texts proposed for publication must be unpublished and should not have been submitted to any other journal or electronic edition. Works written in Portuguese, English, Spanish, Italian and French are accepted.

The publication of texts in Ophiussa – Revista do Centro de Arqueologia da Universidade de Lisboa does not imply the payment of any fee nor does it entitle to any economic remuneration.

This edition immediately and freely provides all of its content, in open access, in order to promote global circulation and exchange of scientific research and knowledge. This publication has a limited printed edition in black and white, which will be distributed free of charge by the most relevant international libraries and institutions, and exchanged with periodicals of the same specialty, which will be integrated in the Library of Faculdade de Letras of Universidade de Lisboa. It also has a digital version, in color, available at address http://ophiussa.letras.ulisboa.pt, where one can consult the entire edition.

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